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SHORT NOTICES ON NEW USSR
ELECTRICAL ENGINEERING BOOKS

[The following is taken from Energetik, No 3, Moscow, August 1953, pp 38-39, and Energetik, No 5, October 1953, pp 39-40.]

Apraksin, A. I. Afanas'yev, V. V., and Krasnogorodtsev, S. A., Disconnecting Switches (Raz'yedinitely), Gosenergoizdat, 1952, 153 pages, 2.50 rubles.

This book discusses the designations and operating conditions of disconnecting switches; design of repeating, knife, roller, and rocker types; design of manual, electric, and pneumatic drives; design of individual parts; methods of assembly; and checking, testing, and installation of disconnecting switches.

This book is intended for skilled workmen and others at apparatus building plants and for operating personnel of power establishments.

Belkin, M. D. and Shtykhov, G. S., Brushes for Electrical Machinery, Their Manufacture and Uses (Shchetki dlya elektricheskikh mashin, ikh proizvodstvo i primeneniye), Gosenergoizdat, 1952, 158 pages, 6.75 rubles.

This book contains a classification of electric brushes according to composition and technical characteristics. It discusses the properties of brushes as the determining factor in their application; the conditions which determine their operation; their role in the commutation process; and physicochemical properties of brushes. The book briefly describes the manufacture of brushes and discusses selection of brushes. In addition, the book contains rather detailed data on replacement of foreign-made brushes with domestic brushes. Also, the book describes causes of sparking and methods of eliminating it.

This book is intended for engineers, technicians, and qualified personnel engaged in adjusting and operating electric machines.

Gurevich, Ye. Ya., Operation of Synchronous Compensators (Ekspluatatsiya sinkhronnykh kompensatorov), Gosenergoizdat, 1952, 198 pages, 8.25 rubles.

This book discusses in general the design of synchronous compensators and their parts: stator, rotor, bearings, couplings, etc; systems of field excitation and extinction; and auxiliary equipment of a compensator (starting motor, air filters and coolers, bearing cooling devices).

Linkov, A. V., Production of Paper Insulated Power Cables Rated up to 10 kv (Proizvodstvo silovykh kabeley o bumazhnoy izolyatsiyey do 10 kv), Gosenergoizdat, 1952, 150 pages, 4.00 rubles.

This book covers technological problems involved in the production of power cables with impregnated paper insulation rated up to 10 kv. Chapters are devoted to problems of weaving and insulating of cable cores, drying and impregnating of paper insulation, leading and arming of cables, and to technological control of manufacturing processes and check testing of cables. Special attention is devoted to operating conditions in individual stages of cable manufacture.

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The book is intended for engineers, technicians, and shop workers in the cable industry, but may also be of use to employees of municipal cable networks.

Roginsky, V. Yu., Semiconductor Rectifiers (Polyprovodnikovyye vypyramiteli), Gosenergoizdat, 1952, 64 pages, 1.60 rubles.

This book is No 160 in the Massovaya Radiobiblioteka (Mass Radio Library) Series. It describes selenium and copper oxide semiconductor rectifiers, the principles of their operation and construction, and their electrical characteristics, as well as giving a comparison of selenium and copper oxide rectifiers. The book cites various systems for rectification of single-phase ac (including half-wave, full-wave, and bridge circuit types), proportional data for these systems, losses, and design of rectifiers and ripple filters. Sample calculations of low-power selenium rectifiers and ripple filters are given. The appendix contains tables for the selection of power transformer cores and filter chokes.

The book is intended for experienced radio amateurs, but can also be of help to beginners.

Val'gard, S. L., Electricity in Modern Engineering (Elektrichestvo v sovremennoy tekhnike), Gosenergoizdat, 1952, 144 pages, 3.90 rubles.

This book contains a popular discussion of electricity and its application in various branches of industry, transportation, and agriculture. Early chapters explain the basic laws of electricity, concepts of electric current, conductors, and insulators, voltage, and resistance in electric circuits, dc and ac current, magnetic fields, and electromagnets. Subsequent chapters treat generation and transmission of electric power; its application in industry, transportation, agriculture; and automatic equipment. Concluding chapters cover new developments in the fields of electrical and radio engineering, including electronic tubes, electronic automatic equipment, photoelectric cells, sound motion pictures, television, radar, and the electronic microscope.

The book is intended for beginners in the field of electricity.

Voskresenskiy, V. F., Reconditioning of Insulation and Repair of High-Voltage Bushings (Vosstanovleniye izolyatsii i remont vysokovolt'nykh vvodov), Gosenergoizdat, 1952, 74 pages, 2.35 rubles.

This book describes various types of high-voltage bushings. Special features, shortcomings, and various aspects of repair work are discussed, including repair of the porcelain linings, restoration of the conducting covering, reinforcement of porcelain, varnishing of bakelite parts, and refilling bushings with mastic. The book also describes methods for restoration of the insulating properties of bushings by drying, disassembly, and assembly during repairs; the elimination of defects in leads; tests during repairs; and restoration of insulating parts of apparatus (interior insulation of circuit breakers; parts of Deion grids, and others).

The book is intended for workmen at electrical repair shops and laboratories of power installations who are engaged in repair and reconditioning of insulation.

Vostrozmutov, N. G., Repair of Electric Meters (Remont elektricheskikh schetchikov), Gosenergoizdat, 1952, 184 pages, 6.40 rubles.

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This book discusses the construction of single-phase and three-phase active and reactive power meters and of their individual parts. Basic shop repair data, flow sheets for the repair process, and shop equipment and tools needed are described. The book also discusses problems of meter repair, equipment for current and voltage regulation, checking devices for single-phase and three-phase meters, measurements of dc and single-phase and three-phase ac current, reactive power, and adjustment of meters.

The book is intended for workers at special electrical repair shops which repair electric meters, and can be used as a guide in planning small repair shops.

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